LOUISVILLE WATER COMPANY
2009 ANNUAL WATER QUALITY REPORT
PWSID: KY0560258

PURE TAP REPORT

Over 850,000 people in Louisville Metro and parts of Bullitt and Oldham Counties depend on Louisville Water Company (LWC) for superior water quality. The Pure Tap Report gives you information about your drinking water and LWC's commitment to quality and service.

COMMITMENT TO QUALITY

LWC is a lifeline to the region, supplying safe drinking water for homes, businesses and schools. 2009 marks an important milestone in quality; it's the 100th anniversary of the Crescent Hill Filtration Plant. At the turn of the century, LWC pioneered research that led to the development of filtration. The work culminated in the opening of the Crescent Hill plant in 1909. The filtration method became the standard practice for water utilities around the world and virtually wiped out the threat of disease in drinking water.

Today, our scientists continue that commitment to quality; performing over 300 tests on your drinking water every day. Louisville is known for superior water quality; in 2008 LWC was named "best tasting tap water in America" by the American Water Works Association.

LWC is using mother nature to enhance the source of drinking water. In 2008, we finished building a tunnel 150 feet in the ground at the B.E. Payne plant as part of a riverbank filtration program. The tunnel, over a mile long, will be connected to wells that will supply up to 60 million gallons a day of ground water. This water is a much cleaner source; it's naturally filtered by the sand and gravel in the aquifer. It's also a "green solution", requiring fewer chemicals for treatment. The expansion of riverbank filtration will be complete in 2010.

COMMUNITY INVOLVEMENT

Improving public health and educating children and adults on the benefits of tap water is important to LWC.

We were one of the first cities in the United States to add fluoride to the drinking water supply. Our dental health partnership, Smile Kentucky! provides dental education to thousands of children and free treatment to hundreds. Tooth decay is the number one chronic disease for children; in 2008 over 340 children received free dental care with Smile Kentucky!

Can you explain the "science" behind drinking water? LWC's award winning education program brings science to life for thousands of students. Over one hundred schools participate in education programs from erosion, filtration to hand washing!

Community organizations depend on Louisville Water to provide Pure Tap® at dozens of walks and runs. Our employees fill nearly half-a-million bottles of Pure Tap® each year. In addition, schools, churches, businesses and customers receive empty bottles to fill, wash and reuse.

View this report on-line at www.louisvillewater.com. Click on "water quality."

TABLE DEFINITIONS

MCL: Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG: Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL: Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

BDL: Below Detection Levels. Laboratory analysis indicates that the contaminant is not present.

n/a: Not Applicable. Does not apply.

ppm: Parts per million or milligrams per liter, mg/L.

ppb: Parts per billion or micrograms per liter, µg/L.

pCi/L: Picocuries per liter. A measure of the radioactivity in water.

NTU: Nephelometric Turbidity Unit. A measure of the clearness or clarity of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

AL: Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

RAA: Running Annual Average.

TT: Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

ug/l: Micrograms per liter or parts per billion, ppb.

ADDITIONAL WATER QUALITY DATA

pH - 8.1 SU

Calcium (as Ca) - 50 mg/L

Hardness (as CaCO3) - 170 mg/L (9.9 grains/gallon)

Sodium (as Na) - 25 mg/L

Magnesium (as Mg) - 11 mg/L

Alkalinity (as CaCO3) - 83 mg/L

mg/l - milligrams per liter
su - standard units
Data is an average of Crescent Hill and B.E. Payne Treatment Plants

2008 WATER QUALITY DATA

Your drinking water meets the strict health standards set by the EPA. Data is from testing done in 2008, unless otherwise noted, in accordance with 401 KAR Chapter 8. All figures are well below EPA guidelines.

REGULATED SUBSTANCES - TREATMENT PLANTS

Water Quality Data 2008	Crescent Hill Filter Plant (CHFP)			B. E. Payne Water Treatment Plant (BEP)						
Substance (units)	CHFP Average	Highest Compliance Level Detected	Range of Detections	BEP Average	Highest Compliance Level Detected	Range of Detections	MCL	MCLG	Compliance Achieved	Typical Source of Contamination
Inorganic										
Barium (ppm)	0.03	0.03	one measurement	0.02	0.02	one measurement	2	2	Yes	Drilling waste, metal refineries. Erosion of natural deposits.
Chromium (ppb)	3.1	3.1	one measurement	3.2	3.2	one measurement	100	100	Yes	Steel and pulp mill waste. Erosion of natural deposits.
Fluoride (ppm)	0.99	1.17	0.86 - 1.17	1.01	1.20	0.87 - 1.20	4	4	Yes	Additive that promotes strong teeth. Fertilizer and aluminum factories. Erosion of natural deposits.
Nickel (ppb)	3.5	3.5	one measurement	2.6	2.6	one measurement	*n/a	n/a	Yes	Runoff from landfills and cropland. Metal refineries & factories. Erosion of natural deposits.
Nitrate (ppm)	1.1	1.4	0.97 - 1.4	0.83	1.0	0.70- 1.0	10	10	Yes	Runoff from fertilizer & leaching from septic tanks. Erosion of natural deposits.
Nitrite (ppm)	BDL	0.012	BDL - 0.012	BDL	BDL	BDL	1	1	Yes	Runoff from fertilizer & leaching from septic tanks. Erosion of natural deposits.
Turbidity (NTU)	0.05	0.09 100% ≤ 0.3	0.02 - 0.09	0.06	0.13 100% ≤ 0.3	0.03 - 0.13	TT 100% ≤ 1.0 and 95% ≤ 0.3	n/a	Yes	Soil runoff.

**The MLC for Nickel was recommended by USEPA in February 1995.*

Organic										
Total Organic Carbon (Removal Ratio)	1.25	Lowest RAA Removal Ratio 1.17	0.84 - 1.57	1.07	Lowest RAA Removal Ratio 1.05	0.72 - 1.51	TT (≥ 1.00)	n/a	Yes	Naturally present in the environment.

Total Organic Carbon occurs in source waters from natural substances such as decayed leaves and animal wastes. It can combine with chlorine used in disinfection to form disinfection byproducts. TOC is measured in parts per million (ppm) but compliance with the treatment technique (TT) is based on a running annual average of the monthly ratios of the percent TOC treatment removal compared to the required removal. A minimum annual average ratio of 1.00 is required. In 2008, LWC met the TOC treatment technique requirement.

Radionuclides										
Uranium (ug/L)** (2007)	0.14	0.24	0.01 - 0.24	0.25	0.34	0.04 - 0.34	**30	0	Yes	Erosion of natural deposits.
Alpha Emitters (pCi/L) (2007)	1.0	2.6	-0.22 - 2.6	0.87	2.2	0.05 - 2.2	15	0	Yes	Erosion of natural deposits.
Combined Radium (pCi/L) (2007) (Reported as Radium 226 & 228)	0.68	1.00	0.23 - 1.00	0.87	1.93	0.33 - 1.93	5	0	Yes	Erosion of natural deposits.

*** The MCL for Uranium is 30 ug/L or 20 pCi/L. Values were reported in pCi/L then converted to ug/L.*

REGULATED SUBSTANCES - DISTRIBUTION SYSTEM

Substance (units)	Annual Average	Highest Compliance Level Detected	Range of Detections	MCL	MCLG	Compliance Achieved	Typical Source of Contamination
Total Trihalomethanes (ppb)	22.4 (RAA)	24.2 (RAA)	10.7 - 46.0	80	n/a	Yes	Byproduct of drinking water disinfection.
Total Trihalomethanes (ppb) (IDSE)	IDSE (initial distribution system evaluation) is a study to determine future induvidual sites. The IDSE was completed in September 2008.		9.9 - 49.9	n/a	n/a	Yes	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb)	12.0 (RRA)	13.2 (RAA)	BDL -26.7	60	n/a	Yes	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb) (IDSE)	IDSE (initial distribution system evaluation) is a study to determine future induvidual sites. The IDSE was completed in September 2008		5.1 - 28.7	n/a	n/a	Yes	Byproduct of drinking water disinfection.
Chloramines (ppm)	2.6 (RAA)	2.7 (RAA)	0.9 - 3.3	MRDL = 4.0	MRDLG = 4	Yes	Water additive used to control microbes.
Total Coliform (% positive)	0.06%	0.33%	0 - 0.33%	≤ 5% positive samples/month	0	Yes	Naturally present in the environment.

REGULATED SUBSTANCES - AT CUSTOMER'S TAP

Substance (units)	Highest single result	# Results Exceeding AL	90th percentile	Range of Detections	AL	MCLG	Compliance Achieved	Typical Source of Contamination
Copper (ppm)	0.47	0	0.28	0.02 - 0.47	AL 90% ≤ 1.3	1.3	Yes	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead (ppb)	2770***	4	12.7	BDL - 2770	AL 90% ≤ 15	0	Yes	Corrosion of household plumbing systems. Erosion of natural deposits.

Lead and copper results are from 2008 and the most recent required testing done in accordance with the regulation. All samples were taken at customer's taps meeting lead and copper plumbing and water holding time criteria. 53 sites were tested, four samples exceeded the Action Level for lead; zero (0) exceeded the Action Level for copper.

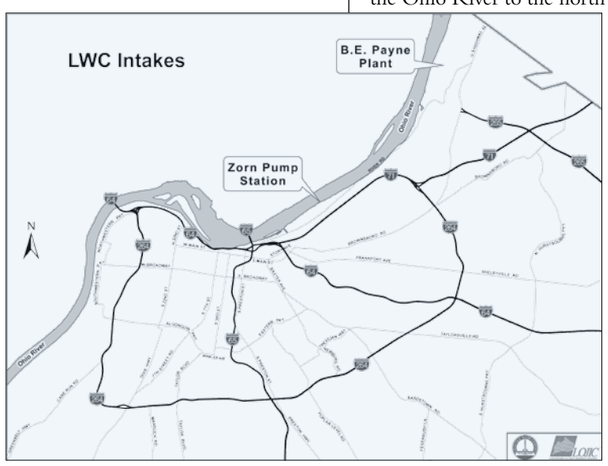
**** LWC immediately investigated this unusually high lead level and discovered that at the time of collection, the homeowner had a leaking meter vault which was later repaired. Of the 53 sites tested, the next highest lead level was 35.6 ppb.*

Cryptosporidium: *LWC monitors for Cryptosporidium, a tiny intestinal parasite often found in surface waters. Cryptosporidium can cause flu-like symptoms if ingested. In 2008, LWC analyzed 36 Ohio River samples. We detected low levels of Cryptosporidium in three river samples with levels ranging from 0 oocysts/L to 0.279 oocysts/L. These detections were within ranges typically measured in the Ohio River. LWC optimizes its treatment process to help ensure removal.*

THE SOURCE

LWC is the public water supplier of Louisville Metro and parts of Bullitt and Oldham Counties. The Ohio River is the source for your drinking water. LWC operates two surface water treatment plants with intakes on the Ohio River. In October 2003, the Kentucky Division of Water approved a Source Water Assessment and Protection Plan for Jefferson County. The plan looks at LWC's susceptibility to potential sources of contamination. The plan identified spills of hazardous materials on the Ohio River and permitted discharges of sanitary sewers as the highest contamination risks. In Jefferson County, land use in the protection area is primarily zoned for residential and commercial use, with only a few industrial sites. In Oldham and Trimble Counties (areas bordering the Ohio River to the north of our intakes) land use is primarily zoned for residential and agricultural use. Therefore source water contamination risks are relatively low. LWC maintains an Emergency Preparedness and Disaster Services Plan to address potential contamination risks. To view the entire Source Water Assessment and Protection Plan contact Jim Smith at 502-569-3687.

LWC also draws water through the aquifer with riverbank filtration wells at the B.E. Payne Plant. Therefore, protecting the water deep in the ground is important. The Kentucky Division of Water approved LWC's Wellhead Protection Plan (WHPP) in 2004. The goal is to safeguard groundwater feeding into the wells from contamination within the Wellhead Protection Area (WHPA) in Prospect. LWC continually updates the plan. New residents and businesses in the WHPA receive information about the WHPP and educational materials. The information is also available on our website, www.louisvillewater.com.



MESSAGE FROM THE EPA

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming; Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ABOUT LEAD:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

SCHOOL LEAD MONITORING PROGRAM

Louisville Water Company works jointly with the Jefferson County Public Schools to monitor lead levels in school drinking water fountains on a rotating annual basis. We also monitor private schools in Jefferson County, and other schools serviced by LWC (Oldham and Bullitt Counties) on a voluntary basis every 3 years. Monitoring lead levels in drinking water fountains began in 1989, and in 2004 a joint program was established. The goal of the program is to help achieve greater health standards for our communities and has become a model to other communities and utilities. Results from 2008's testing indicated that the drinking water fountains tested met EPA's water quality guidelines.

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Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien. (This pamphlet contains important information about your drinking water. Please have this information translated.)

Dear Louisville Water Company Customer,

I'm pleased to provide you with Louisville Water Company's (LWC) "Pure Tap Report" with detailed information about the quality of your drinking water. LWC prepared this report to meet Environmental Protection Agency (EPA) requirements under the Safe Drinking Water Act Amendment. Your drinking water meets the EPA's strict health standards. We're proud of the superior product we provide; in 2008 LWC was named "best tasting tap water in America" by the American Water Works Association. The more than 430 employees who work at LWC take pride in delivering a safe, reliable supply of drinking water every day. It's our pleasure to serve you.

Greg C. Heitzman

Greg Heitzman
President and CEO, Louisville Water Company

QUESTIONS ABOUT THIS REPORT?

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LWC CUSTOMER SERVICE

(502) 583-6610
(888) 535-6262
Monday – Friday 8am - 7pm
Saturday 8:30am - 12:30pm

WALK-IN CUSTOMER SERVICE

Monday-Friday 8am to 5pm

550 South Third Street, Louisville

3396 Burkland Boulevard, Shepherdsville

ENHANCED CUSTOMER SERVICE FEATURES COMING SOON TO LOUISVILLE WATER COMPANY CUSTOMERS

- Sign up for free automatic bank deduction to have your bill paid automatically from your checking account and choose your "due date."
- Choose the free, online check payment option*
- Pay your bill online or by phone with an electronic check, credit card or debit card**
- Access your account and water usage information 24/7 online or by phone

Go to louisvillewater.com for detailed information about these new options and accessing other important account information anytime, every day!

*posts to your account in 3-5 days
**a $2.50 convenience fee per transaction is charged by a third party vendor; this electronic check payment option posts to your account within 24-48 hours

FREQUENTLY ASKED QUESTIONS

My bill is unusually high. Could I have a leak?

Small leaks in your home often go unnoticed and quickly add up! If your bill is unusually high, you may want to check your toilet first for a leak. Put ten drops of food coloring in the tank (red or green are best) and let it sit overnight without flushing. If the color shows up in the bowl, you have a leak that needs to be repaired. In addition, look for drips or stains underneath or behind a dishwasher or clothes washer; this can indicate a leaky appliance.

I water my lawn frequently; do you offer irrigation services?

Yes! LWC can install an irrigation meter on an existing water service. This allows you to separate irrigation water usage from residential use. There are no sewer charges on irrigation services.

Is my drinking water hard?

Louisville tap water is treated to be moderately hard. Moderately hard water helps build a protective layer of calcium carbonate on the inside of pipes to protect you from any lead plumbing that may be in your home. Softened water is more corrosive and has been linked to heart problems.

CUSTOMER INPUT

LWC's Customer Advisory Council meets every eight weeks. The Board of Water Works meets the second Tuesday of each month at 12:30pm at 550 South Third Street.

GET FREE PURE TAP® BOTTLES

LWC provides Pure Tap bottles to use at home, school, church, civic meetings and sporting events. Call 569-3600 and ask for public information or email puretapbottles@lwcky.com.

WHAT'S THE MESSAGE IN THE BOTTLE?

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